



Fact Sheet #1

Northwest Rockford Area of Fuel Contaminated Groundwater

Background

Benzene contamination and other chemicals typical found in fuels such as gasoline were discovered in private wells in June 2011 on Soper Avenue and Alliance Avenue north of Auburn Street and west of Central Avenue in the northwest portion of Rockford. (See map on page 4 for the area of concern).

Winnebago County Health Department and the Illinois Department of Public Health (IDPH) worked together to collect samples from private wells in the area on three occasions during June, August and September after being informed of fuel-like odors from private well water. Contaminants discovered in some private wells are from a family of chemicals known as volatile organic compounds (VOCs) that are commonly found in fuels such as gasoline, diesel and home heating fuel. The most recent set of well water samples was taken on September 14, 2011. Twenty-five wells have been tested in all, some more than once.

The state and county health departments' primary role is to insure that people who have private wells are aware of the risks associated with using the groundwater. The two agencies have been interpreting private well test results the past three months and explaining to well users any potential health implications. Illinois EPA's role is to investigate the source or sources of the groundwater contamination to determine whether the source or sources can be cleaned up or effectively stopped from contributing to groundwater contamination. The agencies are working together to determine the extent of any risk to public health and the source(s) of the contamination.

What contaminants were found at this site?

The highest concentrations (in milligrams per liter) of chemicals found in groundwater in this area are:

Benzene	-	1.30 mg/L
Ethylbenzene	-	.16 mg/L
Toluene	-	.42 mg/L
Xylenes	-	1.10 mg/L

What is a safe drinking water comparison value for each of these?

The Maximum Contaminant Level (MCL) approved by U.S. EPA as a safe level for drinking water from a community water supply system, at which no adverse health effects would be expected:

Benzene	-	.005 mg/l
Ethylbenzene	-	.70 mg/l
Toluene	-	1.0 mg/l
Xylenes	-	10.0 mg/l

Benzene concentrations in four of the wells tested along Soper and Alliance Avenues north of Auburn Street were greater than the recommended comparison value for safe drinking water.



What adverse health effects are related to exposure to VOCs such as benzene?

Exposure to benzene at the levels found in the area private wells over long periods of time may lead to disorders of the blood and bone marrow system, such as anemia, and may increase the lifetime risk of cancer.

What has recent testing of private wells shown?

Recent sampling results from ten private wells in the area included samples from four homes that had not been tested before. In four wells, benzene was detected at levels greater than the MCL comparison value. IDPH has contacted those well owners and provided guidance about well water use.

Five private well samples in the two-block area were also analyzed for the presence of certain metals and other contaminants that would be expected in waste from metal plating operations done at the former Amerock facility. **None** of that type of contamination was found in the well water.

Twenty-five wells have been sampled, some more than once. Wells that showed **no VOC contamination** are on Bond, N. Day, N. Greenview, N. Johnston, N. Willard and some of the homes tested on Soper and Alliance Avenues.

What advice does Illinois EPA or IDPH give to those of us with private wells in the area?

If you have not had your well tested in the past for the presence of VOCs, you should have your well tested at least once. Additionally, IDPH recommends that if you detect an odor of fuels or solvents in your drinking water to contact the IDPH Rockford Regional Office at 815/987-7511. A list of chemicals to sample for is at the bottom of the web page:

<http://www.epa.state.il.us/well-water/common-contaminants.html>.

When you receive your laboratory results, you may ask a toxicologist at IDPH to review these results with you for possible health implications.

If my well water has concentrations that exceed these “safe levels,” what should I do?

IDPH recommends that owners of wells containing these contaminants equal to or greater than the MCL standards not use their wells as a source of drinking water to reduce exposure to these contaminants.

All well users whose private well has been tested by the county or state health department have been informed of the results, and IDPH has given the residents and homeowners recommendations about use of the groundwater for drinking, cooking, bathing or other uses.

How can I reduce my exposure to VOCs?

If your water contains VOCs, you can greatly reduce your exposure by using another source of drinking water. Since VOCs evaporate into the air, you can reduce your exposure by running the bathroom exhaust fan or opening a window during baths and showers.

Please consult with IDPH regarding questions about installing a

Can vapors from the fuel contamination get into my home?

whole-house filtration system that would be effective for this type of contamination.

Yes, it is possible. In homes where the concentration of benzene in well water is higher than 0.110 mg/l, vapors may enter homes through cracks in basement floors, crawl spaces or sump pits. Currently, there are only three homes where the concentrations were greater than this proposed comparison value.

Who do I talk to about testing my well?

Commercial labs that are certified to analyze samples for chemicals such as VOCs can be found by going to the Illinois EPA web site at: <http://www.epa.state.il.us/well-water/list-accredited-labs.html>.

Discuss the cost of testing with the laboratory. A list of chemical to test for is at the bottom of the web page on this link: <http://www.epa.state.il.us/well-water/common-contaminants.html>.

You may call Clay Simonson at the IDPH Rockford Regional Office if you have concerns that your home is in the area of contamination. His contact information is on page 4 of this fact sheet.

What is the source of the VOC contamination?

Illinois EPA is investigating the source of the VOC contamination. The work plan includes:

- Interviewing area residents about spills or releases;
- Searching Illinois EPA files about contamination;
- Review of historical information about the area geology;
- Gathering environmental data on direction of groundwater flow; and
- Collecting other environmental data in the field as needed to assess the area contamination.

What about the allegations of metal plating wastes that were dumped by the nearby industry in the past?

Illinois EPA is taking seriously the concerns expressed by area residents and is investigating potential waste storage ponds and other areas on/near the former cabinet hardware manufacturer property to the east of the residential areas. The step-wise, scientific investigation plan regarding allegations of hazardous waste dumping will be similar to the actions listed above.

Illinois EPA currently has no information linking benzene use to facility processes. There could be other sources for waste dumped in this area in the past – prior to current environmental regulations.

What are the next steps?

Illinois EPA plans to use a geoprobe, which is a type of drilling equipment mounted on a small truck, to find out more about the groundwater. The Agency will take water levels across several blocks to determine the flow direction of groundwater. In addition, water samples will be taken to analyze for the fuel-related contamination to further define the extent of contamination.

Illinois EPA will issue a fact sheet update to the mailing list as more information is obtained from the investigation.

For more information, you may contact:

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Site Map – Area northwest of Rockford

